Antibiotic Resistance Patient Safety Atlas Inpatient Antibiotic Stewardship Data

Data Methodology

The Inpatient Antibiotic Stewardship section of the Patient Safety Atlas includes data on antibiotic stewardship practices (ASPs), as reported by acute



care hospitals throughout the U.S. to CDC's National Healthcare Safety Network (NHSN). For more information about NHSN, including details on the surveillance methodology, see http://www.cdc.gov/nhsn/about-nhsn/index.html.

Data Represented

Healthcare facilities that participate in the NHSN complete an annual online survey, which includes questions on facility demographics, laboratory practices, and infection control practices. Questions specific to ASPs' organizational structure, support, and activities were first included in 2014. The survey is typically completed by the hospital's infection preventionists. However, hospital staff who complete the antibiotic stewardship questions are encouraged by CDC to request assistance from "pharmacists and/or physicians who focus on infectious diseases, where available, and/or members of the facility's pharmacy and therapeutics committee."

Antibiotic Stewardship Practices (ASPs) Core Elements

- 1. Hospital leadership & commitment
- 2. Accountability
- 3. Drug expertise
- 4. Act
- 5. Track
- 6. Report
- 7. Educate

The antibiotic stewardship portion of the survey has 12 questions (numbers 23 through 34). CDC used responses to these questions to assess whether each facility met the criteria for seven core elements of ASPs.

Data was aggregated to the state and national level.

Questions

The core elements and question numbers corresponding to the 2014 and 2015 NHSN Annual Hospital Survey.

- **1.** Hospital leadership and commitment: Dedicate human, financial, and IT resources
 - #23 Written statement of support
 - #26 Salary support
- **2. Program leadership (Accountability):** Person responsible for outcomes
 - #24 Pharmacist / Physician / Other
- 3. Drug expertise:
 - #25 At least one pharmacist responsible for improving antibiotic use
- **4. Act:** Performance of at least one prescribing improvement action
 - #28 Facility-specific treatment recommendations
 - #31 Audit with feedback
 - #30 Prior-approval
 - #27 Requirement to document antibiotic indication
 - #29 Antibiotic time out

- Track: Monitor prescribing and antibiotic resistance patterns.
 - #32 Monitor antibiotic use (consumption)
 - #28 Facility-specific treatment recommendations and monitor adherence to facility-specific treatment recommendations
 - #27 Requirement to document antibiotic indication and monitor adherence to indication documentation policy
- **6. Report:** Regularly report to staff prescribing and resistance patterns
 - #33 Feedback to providers on how they can improve prescribing
 - #32 Reports on antibiotic use shared with prescribers
 - #31 Audit with feedback. 2015 only, question 31 is counted for both Act and Report. (For 2014, question 31 only counts for Act)
- **7. Educate:** about antibiotic resistance and improving prescribing practices
 - #34 Education provided to clinicians and other relevant staff



